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CONTRIBUTED ARTICLES

The Notre Dame Bee-Hive and Wintering Device.

BY B. J. CHRYSOSTOM.

ALMOST any box, or hive containing loose frames with space enough between the ends of the frames and hive to admit a board say $\frac{1}{2}$ inch thick, can be converted into what in this locality is known as the "Notre Dame Hive," by means of a simple device consisting of the following pieces:

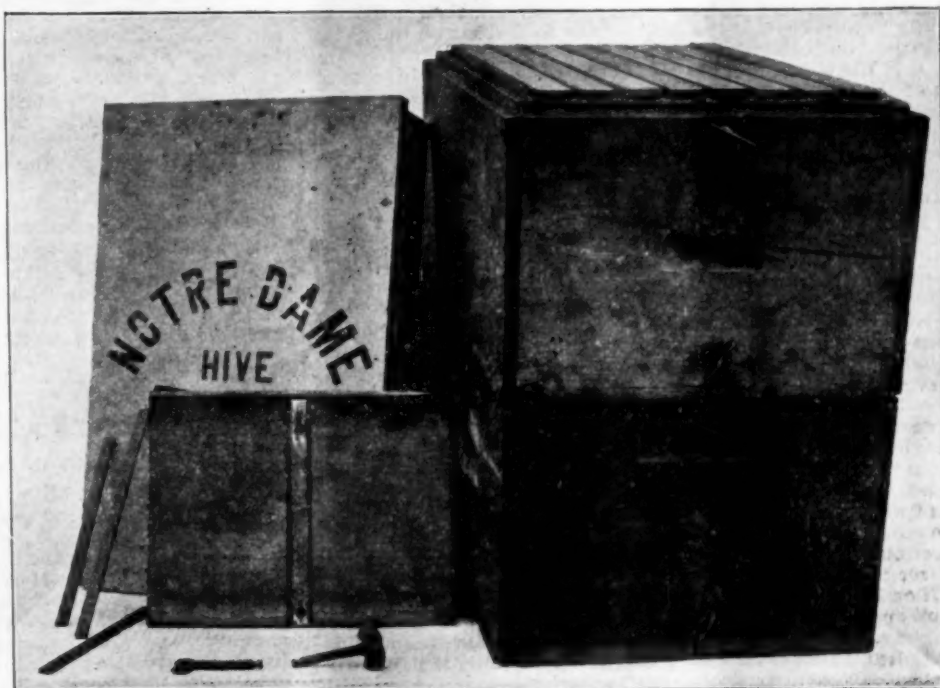
One strip of iron one inch wide, $\frac{1}{8}$ inch thick, and the depth of the hive; two holes much like key-holes are punched in it near each end. Four small screws to fasten this to the board, which is cut to fit in the end of the hive. Two or four $\frac{1}{2} \times 3$ inch coach or wood screws, the points of which are cut off, and a groove cut near the end to fit in the slots in the strip of iron—a kind of little button which when in the slots will pull back as much as it will push forward. These screws, if only two, are put thru in the center of the end of the hive, and are so spaced that when the board is put on the slots in the iron strip will drop down in the grooves cut in the screws, and rest on the bottom of the hive. If four screws are used then two are put opposite the second frame from the outside. The heads of the screws are flattened for convenience. Three little strips of wood are nailed on the sides and bottom of the inside of the hive against which the board fits up tightly when screwed up against the frames. One little strip of oilcloth is tacked on the end of hive and board; this is to prevent the bees from getting behind the board. The edges should be turned in so that no threads are visible for the bees to pull and bite. The holes for the screens are bored with a bit smaller than the screws, and a screw of the same size with

the point sharp is used to cut the thread in the wood, because the screw with the blunt point will not do the work.

The above description was promist last fall, but had been delayed till spring for the purpose of further testing the superiority of the Notre Dame hive in wintering bees on stores very largely composed of honey-dew.

Some were of the opinion that if the bees could be kept warm and dry, and have several flights during winter and early spring, the bad effects of poor food would be, to a great extent, obviated. Such has been the case in this particular instance.

Our experimental work in this line was considerably aided by the issuing of three small swarms, about the first of September, from some nuclei which had been formed for the purpose of rearing late queens. The swarms were hived on drawn combs and fed honey-dew; two of the swarms were made queenless late in the fall, and put in full-



The Notre Dame Bee-Hive and Wintering Device.

depth supers and placed over the parent colony or nucleus, thus forming one colony on 16 frames.

The other swarm was hived on 16 frames, two of which contained hatching brood, and was fed about 20 pounds of honey-dew. To-day (April 20) this colony is working

nearly as large a force as many of the old ones, is in excellent condition, and bids fair to rival the best.

Our bees are wintered on the summer stands in houses, built without any pretensions to warmth, merely affording a shelter from storm and wet. About the middle of last October the bees were warmly packed in short straw and chaff, by placing a board wall about eight inches from the rear of the hives, and filling this space and that in front and between the hives with a mixture of short straw and and chaff. The space between the hives in some cases is two inches, and in others about five.

A strong cloth was put on the frames, and a full-depth super put on. Then one or two little woollen blankets, and then the super was almost filled with chaff over which a wirecloth was placed to keep the mice out; then more chaff, straw and forest leaves till all was entirely covered up. I believe that the bees never suffered the least from cold, because, so far as I know, the temperature of the packing never fell below 30 degrees. Measurements were taken from time to time with the following results:

Jan. 7—Thermometer outside 10 degrees above zero; in packing, 30 degrees above.

Jan. 19—Thermometer outside 12 degrees above zero; in packing, 42 degrees above.

Jan. 29—Thermometer outside 18 degrees below zero; in packing, 39 degrees above.

April 20—Thermometer outside 30 degrees above zero; in packing, 72 degrees above.

April 24—Thermometer outside 55 degrees above zero; in packing, 84 degrees above.

The uniformly high temperature in the packing is owing to the fact that there are no air-spaces around the ends of the frames, and the heat of the cluster radiates thru the walls of the hive and remains in the packing, thus protecting the bees and brood from the bad effects of sudden and severe changes in the weather. It is certainly a gratification to the bee-master, when he packs his bees snug and dry in the early fall, to know that they will not suffer from cold, and will need no further attention until the next May. It is also additional satisfaction, when wishing to look into a hive, to turn two thumb-screws and lift out the frames almost free of propolis.

I wish to state here that four screens to a hive would do the work better and more satisfactorily if two were placed opposite the second frames from the sides of the hive. Suppose we wish to expand the hive $\frac{1}{2}$ of an inch, which I think is sufficient to let the frames lift out, then we have only to turn each of the four screws so much, and the space is equal on both sides.

If the bee-keepers in cold countries desire a hive that combines in itself the advantages of the box for safe wintering, and the loose frame hive with its facilities of frame manipulation made more easy and agreeable, a hive in which bees will winter better, packed in a shed secure from storm and wet, without the trouble, expense, care and anxiety attendant on cellar wintering, then they might do well to invest a few cents in the "Notre Dame Device," put it in one of their hives, and give it a trial.

With this hive bee-keepers will have no need of beecellars nor chaff hives. Cheaply built sheds would be better, and if properly built would save the trouble of moving hives, and the business would be made more easy and pleasant because much of the work could be done in the sheds or houses on rainy days, as I have been accustomed to do for several years.

I have learnt by experience that to avoid the loss of queens and other inconveniences to the bees, their houses ought to be built octagonal in form, so that three hives face to the northeast, three to the east, three to the southeast, three to the south, etc., with a board about $2\frac{1}{2}$ feet wide and about 3 feet high extending out from each corner so as to make the division complete, and also to serve as a protection from winds. There ought to be a window to each three hives set in on pivots, so as to open and close easily. When looking thru a hive all windows should be closed, and opened when thru—the bees will then get out immediately. There is also room in this little house for surplus supplies, and a little corner to do the frame and section work. There are many advantages in this arrangement. It might be more profitable to keep 48 colonies in four such little houses in large hives (non-swarmling) than to keep 100 small colonies in a yard in small hives. However, this is a question better discussed by persons of long and successful experience—a subject on which I would like to read some thoughtful articles.

It is also important to have frames about five inches wide inserted in the wall against which the porticos of the

hives fit tightly, and so placed in the wall as to give about two inches incline outward to the hives, so that the condensation moisture may run out readily.

Let every one who reads this article do his own thinking, and act on St. Paul's advice, "Prove everything, and hold fast to that which is good."

LATER.—Since writing the above report the following is added, which may be of interest in connection with the subject:

On April 22 it was observed that the bees were working very strong bringing in pollen and honey. It was evident if they continued they would fill their hives of 16 frames in three or four days. In order to prevent this it was thought best to put on supers. Some of the strongest colonies were that evening unpacked sufficiently to get supers on, containing 24 one-pound sections each. The supers were covered with a cloth, an empty super put on, and the winter packing returned.

To-day, April 28, the packing was removed for inspection, and the first hive showed the eight outside sections all filled ready for capping; the others had some honey stored in the supers. The fruit-trees will be in bloom the first week in May. If the weather continues favorable we may expect from 10 to 30 pounds of surplus honey per colony. To what cause shall we attribute the flourishing condition of our bees? To the long and severe winter and poor stores? Or to the superior excellence of the Notre Dame hive for comfortable wintering, and also to an early honey-flow from maples, poplars, and other early-blooming trees, and to the fact that there was a sufficiently large force of bees in each hive to bring it home?

May 6.—The apple-trees were in full bloom on May 3, at which time we had rain and some cool weather, but the bees did fairly well. The packing has been removed, and some of the hives have been put on the scales, for the purpose of approximating the amount of honey stored from the middle of April till May 6.

The first colony weighed 146 pounds; this colony weighed 80 pounds when put into winter quarters. A considerable portion of this must have been consumed during the time elapsed since last October, especially in rearing so much brood. This colony has 16 full-depth frames, and a super of 24 one-pound sections nicely capped. It is evident that this colony needs eight more full-depth frames so that the queen may have more brood-room, and the workers more space to store honey. It does seem early in the season to have colonies occupying 24 frames with 24 finished sections, but such is the case.

The next colony weighed was one formed by uniting two nuclei last September. This colony tipped the scales at 104 pounds; weight of the same hive last fall being 76 pounds.

The next one was the little swarm that issued from a glass observation hive about the first of last September, which has been mentioned above. This colony weighed 72 pounds, and is in excellent condition.

The last one weighed 148 pounds, the weight of which was 76 pounds last fall; 76 pounds less 35 pounds (the weight of the hive) leaves the net weight of bees and stores. It is quite possible that the greater part of their stores had been consumed before April 15.

St. Joseph Co., Ind.



The Making of Nuclei—Questions Answered.

BY G. M. DOOLITTLE.

ON page 138, Dr. Miller is asked this question: "I intend to increase my number of colonies the coming season by dividing. My plan of doing it is this: I have 14 old colonies, and want to increase them to 28 in all. So I thought I would take 14 of my new hives in which I want to have the new swarms, and make a nucleus in each by putting a frame of brood and eggs, and one of honey in each hive, and then contract the inside of the hive with a division-board so as to keep the bees which I intend to put into the hive confined to the side of the two frames. How many bees will I have to put into a hive? Will a pint do? And will these bees rear a queen from the eggs given them? Do you think a nucleus formed in this way will be all right? Would it be safe from robber bees?"

Now, as I intimated in a late article, I had expected to take the good Doctor to task for the way he answered that question, asking him a lot of questions regarding his answers to it, so as to draw him out further, but upon a later

reflection I have concluded to answer the same lot of questions myself, and then the readers of the American Bee Journal, as well as the Doctor, can see how we agree in the matter.

But before beginning at the general answering there is one item which I think should be noticed in the matter, which the Doctor never touched upon at all. The questioner says: "I thought I would take 14 new hives in which I want to *hive* the new swarms" (italics mine), which would show that after his nuclei are formed later on he intends to place the swarms, which may issue, into these same hives having nuclei in them, for as soon as his 14 new hives are occupied with nuclei he will have 28 hives with bees in them, and that is the number he says he wants. Consequently, if he has any new swarms at all they must be hived in with those nuclei, or he must procure more hives, in which latter case he would have more than the desired 28 in the fall.

I know that he speaks of dividing, in his first sentence, but knowing the nature of bees I know that unless he takes more than the one frame of honey and brood from each colony, as he proposes, he *will* have swarms to hive, and as he speaks of wanting "to hive the new swarms," I take it for granted that he expects the new swarms, and is calculating to hive them in with the nuclei. But how he is to do this is something the Doctor failed to tell us, intentionally or otherwise. There is only one way which I know of without having many bees killed, and making a general "muss" of it all around; and that way is to have all the queens with clipped wings, those in the nuclei after they begin to lay, as well as those in the full colonies; then when a swarm issues allow the queen to run into a cage, stopping her in. Next, carry the parent colony to the stand of the nucleus you wish the swarm to go into, setting the nucleus off and the parent colony in the place of it, immediately letting the queen out of the cage and allowing her to run in her old home. Now set the nucleus on the stand previously occupied by the old colony, and, as expeditiously as possible, fill the hive with frames filled with comb foundation or empty comb.

By this time the swarm will have begun to return, and as quick as it does so, shake the bees and queen off their two combs down in front of the hive from a foot to 18 inches away from the entrance, when all will run in together without any quarreling, providing you smoked the nucleus on first removing it from its stand so its bees have filled themselves with honey. If you do not take these precautions the bees in the nucleus would kill the bees from the swarm as fast as they came back, in nine cases out of ten. The next day the nucleus and new swarm combined should be boxed, and the hive of the parent colony opened, and if the queen-cells are not already destroyed they should now be cut off, when, as a rule, swarming will be over with those two hives for the season, if plenty of section-room is provided for the colony having the old queen.

Now to answering the questions propounded: After telling us how he proposes to fix his hive with one frame of brood and one of honey he asks, "How many bees will I have to put into a hive? Will a pint do?" Well, that depends: If four quarts of bees are taken from any colony of the 14 our questioner says he has, and said 14 colonies are all in the same apiary where he is forming his nuclei, as it will be reasonable to infer, said four quarts will not be enough to make a decent nucleus of those two frames, providing *no precautions* are taken to make that four quarts of bees stay in that hive, for all but the very youngest fuzzy ones will go back home, and the fuzzy fellows run out in the grass and all about the outside of the hive where they will perish.

During my nearly 30 years of experience of forming nuclei with bees taken from a colony having a queen and putting them on a frame or two of brood and honey, it has been a great mystery to me how nearly every one will get back to the old hive, altho apparently half of those carried to the nucleus have never flown from the old hive before. But such is the fact, and it is useless to take bees from their mother and put them into a hive having combs of brood only expecting them to stay, unless they are fastened to the hive, or some precaution taken to make them stay "where put." But if you can go to your out-apiary, or to some neighboring bee-keeper, and get a *quart* of bees in a nucleus-box, such as I have described in previous issues of the American Bee Journal, and at the expiration of 24 hours put them on those two combs—one of brood and one of honey—you will have a good nucleus, and even if you so take bees from the same apiary in such a box, and keep them in the box 48 hours instead of the 24, feeding them so

they will have all the food they need, they will stay when put in the hive nearly as well as those from the out-apiary, but not quite, unless you give them a queen of some kind, virgin or otherwise, after they have been in the box from 8 to 12 hours.

And now allow me to disagree with the Doctor a little. He takes special pains to tell the questioner that if the bees do rear a queen from the eggs given, she will be "a very poor affair." Well, as I said before, without any precaution toward making the bees stay on that frame of brood, they would all leave, and if *so no* queen would be reared at all—a *poor affair* or otherwise; but where bees are taken from an out-apiary and kept in a nucleus-box without any queen for 24 hours, at the expiration of which a *quart* of bees is turned loose on two frames fixt as the questioner proposes, they will rear *just as good* queens as by any of the plans used which deprive the colony of its *queen* while the cells are being built, as I have proven time and time again; for, while in the nucleus-box they do "so long" for a queen that nearly all of them will prepare royal jelly, and when they have access to brood they will just "flood" the young larva chosen for a queen with it nearly, if not quite, equal to those being reared in a colony preparing to cast a swarm. And a quart of bees on the two frames will keep up the necessary heat to fully perfect those queens, where treated as I have given, fully as good as will a strong colony whose queen has been taken from them that they may rear queens.

While I *do not* recommend this way of rearing queens, if the doubting ones will try it they will become convinced that a quart of bees so treated will rear queens as good as any known a score of years ago, outside of those reared by natural swarming. And if this be so, then the question, "Do you think a nucleus formed in this way will be all right?" would be answered in the affirmative, and the robbing part the same.

Onondaga Co., N. Y.

The Use of Barrels as Honey-Packages.

BY C. P. DADANT.

IN a recent number of the American Bee Journal I see an editorial criticising the use of barrels as honey-packages. I will readily agree that tin makes a much more convenient receptacle, yet barrels have served us so long, especially to keep honey for several years, that I cannot help saying a word in their favor. We have, many times in the past, kept honey as long as three and four years in barrels without any trouble.

The important thing is to have good, tight barrels, sound and well dried. The great mistake many bee-keepers make when putting their honey in barrels is to treat them as if intended for wine or vinegar, or other wood-soaking liquid. A barrel which needs to be soaked in order not to leak, is not safe for honey. Only the very best hardwood barrels should be used for honey, and among these, those that have been treated to a coat of glue, as for coal-oil or alcohol, are the safest. These are entirely impermeable, and unless they have been soaked and again dried they will not leak. If they have remained in a dry place when not in use, all that needs to be done is to tighten the hoops on them just before using them, and keep them as before—in a dry place. We have used some barrels over and over again for 10 or 15 years without any loss.

As to taking the barrel apart to take out the honey, it is an easy job, and does not injure the barrel in the least if properly done. When we speak of barrels, we mean iron-bound barrels, for wooden hoops are unsatisfactory, always. To open a barrel of granulated honey all you need is a strong gimlet, a hoop-chase and a hammer or mallet. The barrel is set on end, the head is thoroly cleansed, and the gimlet screwed into the center of it. Then a couple of marks are made on the edge of the head to correspond with similar marks on the chime, so the head may be replaced in the same position as first found, after the barrel has been emptied. The hoops are then chased off, the staves spread a little, and the head is lifted off by the help of the gimlet. The honey may then be scooped out with a ladle, a scoop, a shovel, or even a spade, according to its density. After it has been entirely emptied, the head is replaced in exactly the position it occupied. A barrel treated in this way may be used over and over again without risk. This is not theory, but a practical fact, and the first thing I teach a new clerk who is expected to handle honey and put it up in different packages is how to remove a barrel head properly.

It is true that if we use the 60-pound cans we are saved

some trouble, but I do not believe I would trade good barrels for those 60-pound cans when harvesting honey which may have to be put into small receptacles, according to the customers' wishes. For instance, if we have a crop of 20,000 pounds of honey, and put it all in 60-pound cans, we may have orders for some 10-pound or 5-pound, or even smaller cans. You will ask, Why not put it up in different sizes? We have tried it, but this has to be done during the harvest, when we are busy, and then we do not know how much should be put up of each different size of packages. If it is all in 60-pound cans, when we take it out, to put, say 3,000 pounds in small sizes, we have 50 of those cans to empty. It is a great trouble to wash them, and it is not advisable to leave them sticky with honey for a season. If you wash them, they will not dry inside and will rust. If your honey is in large barrels the putting up of the 3,000 pounds will use up the honey of only about six barrels. These are easily emptied, easily cleansed, and ready for another crop without fear of rust or bad taste.

The demand for honey in 60-pound cans is on the increase, and I am glad of it. I should very much like to sell all the honey we produce in that shape, but we must cater to the trade, and I do not think that we will ever cease retailing out our goods in all sizes of packages, from 500 pounds to a single pound. We expect to use tin cans mainly, but we will always prefer barrels from which to put up different sizes according to orders.

One word of warning: It is unsafe to melt granulated honey and return it to the barrel while it is hot. Honey has such wonderful hygrometric properties that the hot honey will absorb any moisture that may exist in the wood and actually shrink it till it leaks. This does not happen with cold honey. We were caught at this twice before we understood what was the cause of the trouble. So if you have to melt honey do not put it back into the barrel before it is cold. It is always best to use a good, strong can—an extractor can is very good—as it may be used till the honey has all been drawn off. If large tin cans with open top were not so inconvenient, they would make excellent packages to keep honey till the apiarist is ready to put it up for retailing.

I spoke of barrels glued for coal-oil or alcohol; I meant barrels that have not been in use. A barrel that has contained alcohol is safe for honey, but a barrel that has contained coal-oil is fit for nothing but coal-oil afterwards.

"EXPERIENCED NOVICE" A MISTAKE.

I like Cogitator's friendly criticisms, which are always very much to the point, and pleasantly given, but I cannot pass his last mention of the new phrase coined by myself, as it would appear on page 164—"experienced novice." By referring to the quotation on the page mentioned, the reader will readily perceive that I meant "inexperienced novice;" the mistake was made either by my fault or by a typographical error. Altho I do not have the infallible correctness which belongs only to erudite writers like R. L. Taylor, I much prefer being guilty of the use of synonyms than contradictory expressions.

Hancock Co., Ill.

A Chatty Letter on Various Topics.

BY W. A. PRYAL.

THE WEATHER AND QUEEN-REARING.—The weather has been so fine for the past few weeks, and the days seem so long, that I spend very little time within doors. I am glad that I am able to be in the open air so much, tho I like to spend several hours each day in reading or writing. Lately I have been giving what spare time I can command to my bees. I am in hopes that I will be able to attend to the 40 odd colonies I have in such a way that I will secure a good crop of honey. Then I want to rear a lot of queens. I have found queen-rearing a very fascinating occupation. I don't know anything I like better. I have been reading up all the literature bearing upon the subject I could get hold of. I have been very much taken up with "Thirty Years Among the Bees." I think it is about the most interestingly written book on bees published in this country. The title, tho, is badly chosen; it should be changed in future editions. Then it should be re-written and published in nice book form and bound in cloth. I believe that if a book is worth printing it should be worthy of a decent cover. Of course, cheap editions could be issued for those who may choose them in less pretentious bindings. My edition is in pamphlet form. It is too much of a bee-classic to send out that way. I have read

"Scientific Queen-Rearing," but I do not like the plan in it nearly so well as I do those in the other book. Then, the latter gives the reader so many choices of ways that he can't go wrong, if he has had any previous knowledge of the business; and he is so honest in his expressions that it seems to me that one can't help but admire the man.

We have had no rain since the middle of April to speak of; there has been none this month, tho the weather has been threatening showers the past couple of days. Since I started this letter it has begun to rain some, and I should not wonder but we may get enough to lay the dust. While a good rain would be a benefit to the bee-pasture, still, it would do great damage to the hay crop, much of which is now cut, and to the cherry crop, the earlier varieties of which are ripe. This fruit is much earlier than usual. Our black Tartarians are seldom ripe before the end of the first week in June. This year they are now ready to harvest. Cherries and most other fruit is not going to be a heavy crop in California this season, yet the fruit will be of large size and fine flavor. The trees are making a fine growth, which may indicate that there will be a heavy crop next year, provided there is not a dry season. The grain and hay crop in this portion of the State will be heavy; it will be above the average. In the lower part of the State I have been told by those who have been there recently, there will be no crops to speak of. Grass only five inches high is being cut for hay; here it is three and four feet high, and in some places more. I notice that Prof. Cook, in the last American Bee Journal, says that they have had but 7 inches of rain in his section; here we have had 23, I believe.

MR. PENDER AND THE UNIVERSITY.—When Mr. W. S. Pender was with me a week ago Sunday, I drove him thru the State University grounds, and showed him the several varieties of eucalypti we have introduced here. All the varieties grown in California are not to be seen in these grounds; neither was I able to show the gentleman all that are scattered over the place. I showed him some that are in other places hereabouts. I find that our names do not agree with many he calls by the same name. There is nothing like knowing the botanical name of a plant.

Mr. Pender was quite an observer of our styles of architecture; he said that we build very pretty residences. He wondered why the University did not have one or two large buildings rather than so many of various sizes. I told him that we were to have even more, and that some of the very fine and handsome buildings he saw were to be torn down along with all the smaller ones, and a grand system of building inaugurated, the plans of which are being prepared by the best architects in the world (there being an open competition and large premiums being held out for the best plans), and when everything is in readiness work will be begun. The plan is to make our State University the grandest in the world. The site is the finest possible, being about 200 feet above the bay, and opposite the Golden Gate. Our deaf, dumb and blind asylums, at Berkeley, have the name of being the finest of the kind anywhere, tho I hardly think the buildings are the best.

Quite a heavy shower fell while I was writing this page; it may rain all night. (LATER.—It did in showers, and neither did good nor harm—'twas too light.)

The indications are that honey is not going to be plentiful; the flowers do not yield much nectar. Perhaps later the flow may be better.

EXIT ADULTERATED HONEY.—To-day I called upon the grocer in Oakland where I deal, and where I sold some honey early this month, with the purpose of telling him that I was prepared to sell him some of this year's honey—extracted and comb—as I had commenced to harvest it. I was more than pleased to find out that my prospect of supplying the home market with extracted honey had increased very encouragingly recently. It came about in this way:

The city of Oakland has a health department that is up with the times; it has its health officer, sanitary inspector, food inspector, chemist, etc. It has a well equipped laboratory. Well, my grocer told me that the food inspector had called upon him a few days ago and asked to see what kinds of honey he was selling. He was shown some put up in glass jars or bottles—a piece of comb honey surrounded with what purported to be extracted honey. The markets here are flooded with honey put up in this shape, most of which bear the label of some one of the "syrup companies" of San Francisco. This particular sort that the grocer brought forth did not bear any label; it was a fair brand of the usual "honey" that has been so sold in the markets about the bay, and I suppose on the coast for many years.

But this sort of "honey" is getting its death blow. The inspector told the grocer *not to sell any more of the stuff as it is not fit for food.*

The grocer is an honorable young man, and will obey the arm of the law. I presume I can supply him with all the honey he may sell, and it seems that his store uses a good deal. I have been selling him some in bulk; he has some customers that like my honey better than the Southern California article, tho the former is usually darker than the latter. He says the folks at his home prefer my honey to anything they ever tasted in the honey line previously.

I believe the California pure food law is doing much good for the producers of wholesome foods. I notice that the labels of lots of things that I lookt upon as spurious articles of food now bear labels stating just what they are. It was a common thing here to see all kinds of oils intended for salad oil to bear the words "Pure Olive Oil." Now we see "Salad Oil," with the further information that it is obtained from cotton-seed. This is but a single instance of many others. Californians are very proud of their olive oil; like our honey, there is nothing else as good anywhere on the face of the globe (hic). Nuf said. Hurrah for pure honey!

Alameda Co., Calif., May 23.



Summer Work in the Apiary—Seasonable Hints.

BY F. A. SNELL.

WITH the opening of the summer season and the opening of white clover bloom the most important season for the apiarist is at hand. It is a season full of interest and anticipations, and hopes usually run high. The main honey-producing season comes within the next few weeks, which time brings the bread and butter for family use for the year to a large extent with many, if a good crop of honey be secured. The results depend quite a good deal upon the skill and management of the bee-keeper. A good deal of work must be done if the best results are to be gained.

A good supply of hives in which to put new swarms should be all ready, and should be in a shady part of the bee-yard, so the hives may be reasonably cool when the swarms are put into them, for if the hives are hot, as will be the case when standing in the hot sun, the swarms are much more inclined to leave for parts unknown. The newly-hived swarms should be shaded for the same reason, and also better work will be done in the supers when they are put on if the extreme heat be avoided so far as may be.

The supers in full supply for a good season should now be ready. A foundation guide, or full sheets, should be in every brood-frame and honey-box. Any partially drawn combs should be used in the first frames or honey-boxes, as such are quite an inducement to the early entering of supers by the bees and work therein. These, when used, I prefer in the central part of the supers, and about three in each row of boxes when running for comb honey.

All hives and supers should be sweet and clean before using. Musty and filthy hives should not be used to put in new swarms, for such are often deserted, and I can see no economy in using such. Clean, new and good hives are cheap, and if kept well painted and properly cared for will last a lifetime. All utensils used in the apiary should be in order, and a place for each so that the apiarist may know just where to find them when needed, that no valuable time be lost in hunting them up.

The bee-yard, if in grass, should be kept mown down with a lawn-mower, and everything kept neatly, which is both pleasant and profitable, for more and better work can be done with such surroundings.

Supers should be placed on all colonies strong enough to begin the storing of surplus on time, so there will be no loss in the honey crop. Extra room should be given for surplus as needed. Experience will have to be the guide in this direction largely as to when this shall be done. The extent and length of the honey-flow must be considered in determining to how great an extent supers should be added.

As the white honey harvest nears its close the surplus department should be diminished in securing comb honey in order to get the greatest possible number of completed combs. At this time if too much room is allowed many boxes will be partially filled, and a less number completed. It is desirable to get the early honey as much by itself and as much of it as we can, and this can only be done by doing as above directed.

All newly-hived swarms strong in numbers should be given a super in about three days after being hived, and if

surplus cases are at hand having a few drawn or partially-drawn combs these should be given them, for it is very important that an early start be secured in the boxes—first, to secure more honey, and, second, to avoid the crowding of the brood-chamber with honey, and the risk of the bees getting the swarming impulse and giving no surplus, which would be the case if swarming occurred. The giving of more surplus-room than one case to new colonies should be decided by the honey-flow as indicated heretofore.

At the close of the white honey harvest all honey-boxes should be taken off and stored in the honey-room, which should be bee-proof. During the honey-flow all boxes should be removed as soon as the outside combs in the surplus cases are capped over. During a scarcity of honey, such as we have after clover and basswood, bees are much inclined to rob, and in removing or handling honey it should be exposed to the least possible extent. We find at such a time bee-escapes are very useful, for with them a large amount of honey may be taken from the hives and stored in the honey-room without any excitement being caused among the bees, or inclination to rob, which is very gratifying.

The honey-room should be a warm one, and well ventilated, so the honey may improve in quality by becoming thicker, which heat alone can do, and then best with circulation.

Queenless colonies, if any exist, would better be united with nuclei or light swarms or colonies, and the honey stored so robbers cannot get to it, for bees are on the alert to find stores at all times and in all ways. During a light honey-flow, such as we sometimes have late in July or August, and not good enough for work in boxes, some honey will be stored by strong colonies in complete combs, such as we extract from, and all strong colonies should be given such if on hand, and some more honey will thus be secured, which is some help, and may add quite a considerable to one's income with a large apiary, and in the same proportion with fewer bees. Get ready for a fall honey-flow.

Carroll Co., Ill., May 22.



CONDUCTED BY

DR. C. C. MILLER, Marengo, Ill.

(The Questions may be mailed to the Bee Journal office, or to Dr. Miller direct, when he will answer them here. Please do not ask the Doctor to send answers by mail.—EDITOR.)

Kingbirds and Bees.

What birds are bad on bees? I have but one colony of bees, and lots of kingbirds, catbirds, thrushes, etc., and do not want to kill any unless necessary. NEBRASKA.

ANSWER.—It isn't very likely that any birds do much damage to your bees unless it be the kingbirds. Sometimes they are troublesome, and sometimes not.

Caging the Queen.

I read very much about "caging the queen," which is a subject that I desire information upon. How is it done? I am in my second season of apiculture, and have never yet seen a queen, altho I have made diligent search and cut out queen-cells every eight days to prevent swarming. This last information I gained thru a friend who lives some distance away, thru correspondence. I have five colonies, and am greatly interested in bees and desire to enlarge, as I become conversant in apiculture, as I find it quite a woman's vocation. I am delightfully situated in the midst of 3,000 or 4,000 fruit-trees, desirable to bees. Is the enclosed cage what I need for caging queens? How is it used? OREG.

ANSWER.—The cage of which you send a picture is all right, and indeed any kind of a cage will do that allows the bees to communicate freely with the queen thru its walls. If the object is simply to keep a queen caged in a hive, the

simpler the cage the better. You can take a piece of wire-cloth about four inches square, wrap it around a stick one inch wide and $\frac{3}{8}$ thick, and four or five inches long. At one end tie some fine wire around to hold it together. Now slide the other end off the stick till about $\frac{3}{4}$ of an inch projects, and bend or fold down the wire-cloth upon the end of the stick. Your cage is now complete. When you desire to use it, draw out the stick, let the queen run in, and push the stick in perhaps an inch. You may take the queen in your fingers and put her in the cage, or, if you are somewhat patient you may set the cage over the queen and let her run in of her own accord.

Crimson Clover—Italian Bees.

1. Will crimson clover sown in the spring, bloom before or in the fall of the same year that it is sown?
2. How is it for feed for all kinds of stock?
3. Would it pay me to get pure Italians, with another bee-keeper within a little over half a mile away keeping black or mixt bees all the time? He won't get pure stock.
4. Of all the bees, which do you think are the best for Kansas?

KANSAS.

ANSWERS.—1. I sowed some in the spring, and some of it bloomed that same year, but the larger part bloomed early the next summer. It may not act in all places alike

2. Fine.

3. You would stand no chance of keeping pure Italians with blacks only half a mile away, and yet it might pay you well to try to keep them. The hybrids would most likely be nearly as good workers as pure Italians, and occasionally introducing fresh Italian blood would keep up vigor.

4. Very likely nothing better than Italians.

Giving Swarms Combs or Foundation—Dividing to Prevent After-Swarms.

1. I have 16 colonies of bees in 8-frame Langstroth-Simplicity hives, running for comb honey. I have 16 more of the same kind of hives filled with good, straight worker-comb. Would you advise giving the new swarms full hives of comb? Or will the bees fill it with honey, leaving no place for the queen to lay? Which will be the better, the combs or foundation?

2. What is the best method for dividing, so as to prevent all after-swarms?

WISCONSIN.

ANSWERS.—1. I should prefer the comb to foundation, but it may be well to give only half the combs at first, giving the rest 10 or 12 days later. For if all are given at first the bees would store in them rather than in sections.

2. One way is to take all but one or two frames of brood from a colony, leaving it all its bees, cutting out all queen-cells, and giving plenty of surplus room. Let the frame or two that you leave contain the youngest brood in the hive. The brood you take away may be put in another hive, brood from some other colony, if convenient, being added to fill out the hive, and this may be put on the stand of another colony which is removed to a new place. Care must be taken that all the cells are cut from these combs, and a laying queen from a nucleus is to be given and left caged for two days.

Blacks and Hybrids in Same Hive—Transferring.

1. Is the queen fertilized by more than one drone? If by only one, what is your reason for both black and hybrid Italian worker-bees in the same hive?

2. Is it a good plan to transfer bees from box-hives by this method? Place a hive containing either comb foundation or comb underneath the box that you wish to transfer the bees from, and drive the queen and some bees into the hive that is prepared, and then place a queen-excluder on top of the hive. Leave the box on top of the hive say 21 days, then remove it as the bees will be hatch out in that time.

ILLINOIS.

ANSWERS.—1. The belief is that in general a queen mates with only one drone. That part of the progeny take after one parent in color, part after the other, and part after both, is nothing unusual. In a family of 10 children with a black-headed father and a red-headed mother, you would not think it strange that some of them should have red hair, some black, and some a compromise.

2. The plan might do very well, only you would find it

difficult to drive bees down-hill into an empty hive. You would find it easier to drive them up-hill. Turn the box-hive upside down, put the new hive over it and drive the bees up, or drive the bees up into some box convenient, then put the bees in the new hive. It will be well if you can put at least one frame of brood in the new hive before putting the excluder over, otherwise the queen may be slow about commencing to lay.

Hives and Honey-Extractors.

1. What kind of hive would you call mine, which has a gable cover, holds eight brood-frames, and has only place for one super of sections under its cover?

2. Taking all these points into consideration, would you call it a good hive for producing extracted honey? It has no movable bottom-board, which is one thing I do not like.

3. What hive having a movable bottom-board is also good for the production of extracted honey?

4. Which honey-extractor is the best for general use, in your consideration?

5. One of my neighbors has a honey-extractor for which he says that he paid \$10 when new. It holds four frames of honey, and has a spout or faucet below for letting the honey out. What is its name?

IOWA.

ANSWERS.—1. I don't know.

2. It may do very well, but one can judge very little from the description.

3. Any hive such as the 10-frame dovetailed, but remember that the best hive will accomplish little if badly managed, and with intelligent management almost any hive will do well. The man is more than the hive.

4. My knowledge of extractors from actual use is very limited, but I suppose almost any of the extractors now on the market are good, the Cowan, that you mention, among them.

5. I don't know. There may be more than one 4-frame extractor with a spout.

Starting in Bee-Keeping.

I now find that the closely confined office practice (doctor), and chemical work of a specialist, does not agree with my health. I am always well in the open air. So the question comes to me as it probably came to you (in a somewhat similar way) years ago, "Shall I keep on and die young, trying to lay up money here, or shall I be content with a living in close contact with nature, and live to a good old age?"

I have the best berry location—blueberries, blackberries and raspberries—in a radius of 15 miles; thousands of apple-trees, maples and small fruits; plenty of golden-rod and a moderate amount of other small honey-plants; little or no basswood, and acres of mountain laurel. Is it poisonous? Do the bees gather from it? An old farmer two miles off has 16 colonies that he manages on the old natural swarming plan, and lets the bees take care of themselves. He got 30 pounds of comb honey per colony last season, and said nothing about poisonous honey from laurel. If there was any doubt I would not risk it.

Do you think in the present condition of the honey business that I could make a living at it? How would you advise me to begin? Would you advise me to run for comb or extracted honey at first?

I had thought of starting 25 colonies in a correctly built house-apiary, and putting my increase out-doors and wintering them there.

I have sufficient capital to enable me to do what is necessary in order to start favorably. I have a brother in California and could start there if it seemed best. R. I.

ANSWERS.—Perhaps no other sort of questions makes me feel more keenly my incompetency to advise than yours. So many things must be taken into account, and with regard to a good many of them one can hardly have any positive knowledge. The best I can do is to reply somewhat generally. To one who desires to live to a good old age, keeping close company with nature, bee-keeping presents strong attraction. I should perhaps put it that I would rather die young after living a good many years than to die an old man after living but few years and laying up money that I could not enjoy. But the financial part cannot be entirely ignored, and that's where the pinch comes.

As to location, the probability is that you have a good one, but if you have told the whole truth about it your loca-

tion is poor. You have mentioned early honey-plants which are valuable to build up on, but which can hardly yield surplus, and late plants which will help fill up for winter, but say nothing of anything likely to give you a profitable crop, except to mention that basswood is scarce. Very likely, however, white clover is not lacking, and it is possible there are other good honey-plants that you have not mentioned. Please don't understand that those early honey-plants are unimportant. They are exceedingly important, because by their means your colonies can build up strong for the main harvest from clover, and possibly from other plants.

There is probably no foundation whatever for fear of honey from laurel. Many a feast of honey I've had in boyhood upon honey gathered where mountain laurel abounds.

To make a living from bee-keeping alone would be possible if you can live very economically, or if you could have a specially favorable location. In most locations there is a possibility that the very first year might be one of entire failure, and in many places the failures occur two or more years in succession.

If it is a possible thing, it would be wise for you to begin right where you are on a small scale, still holding on to your present position, and after a year or so of experience with a small number of colonies (beginning with not more than 10) you would be much better able to decide whether it would be wise to adopt bee-keeping as a vocation. As an avocation for a professional man it is a delightful thing, and it is entirely in the range of possibilities that one may stand the strain of professional life with the burden of bee-keeping added better than without it.

Very likely your best plan would be to begin working for both comb and extracted honey; then you could drop one, or continue both.

Better let the house-apiary alone till you have had some experience.

Altho you might have a wider experience by working for a time in some other locality, the probability is that your better plan would be to work right where you expect to continue. Bee-keeping in one place may be quite different from that in some other place.

As a final word, I feel pretty safe in urging strongly that you do *not* make any very serious investment at first, and that you do not put yourself in position to depend entirely upon bee-keeping until you have felt your way carefully, so managing that at any time you can give up the bees without loss, until you have gained some knowledge that may guide you to a wise answer to your own question.



Light Wired-Foundation is announced as the latest new thing, in Gleanings in Bee-Culture. A step farther than was taken by Capt. Hetherington and the Van Deusens is to be taken, that is, a means of fastening the strands of wire to top and bottom-bar, or to the end-bars.

Diagnosing Foul Brood with a Microscope is considered by Prof. Cook impracticable for the average bee-keeper. He says in Gleanings in Bee-Culture:

"A good microscope could be had for from 20 to 30 dollars—one that would bring out these germs; but the skill and dexterity required in manipulation and determination would make it of little use to the average bee-keeper."

Renewing Queens at Two Years of Age is earnestly advised against by Herr Spuehler. In many cases a queen will do excellent work when she is three or more years old, and if she is doing good work when two years old the new queen that takes her place may not prove a gain. So long as a queen does good work, let her alone, leaving to the bees the task of removing her.—Deutsche Bienenzucht.

Narrow Sections.—Editor Hutchinson, of the Bee-Keepers' Review, mentions using sections 1½ inches wide, evidently not plain sections but with the usual inset, for he used them without separators, and after using some 5,000 of them he likes them. He thinks there may be some advantage in having the combs built 1½ inches from center

to center, for that is about what the bees favor when left to their own sweet will; the thin combs are filled and sealed more quickly; the combs are built straight and uniform; the combs are usually well attached to the wood and not rounded down and narrowed as in wider sections; the attachment to the wood being about the same as with wider sections, while the lesser weight makes less danger of breaking out; and, not least, he finds such sections very salable.

Does Foul Brood Wear Out?—Prof. Cook says in Gleanings in Bee-Culture:

"I do not think that foul brood is very apt to leave an apiary when once established. I have known several apiaries in California entirely ruined by it. I would not say, however, that bees might not recover from this trouble, tho I have always had my doubts. Some of the best bee-keepers in California have assured me that they have known it to be present, and afterward disappear."

Bees Changing Worker-Eggs to Drone-Eggs.—Editor Simmins says in Bee-Chat that he has frequently seen cases in which workers have changed worker-eggs so that they produced drones. But he has doubts as to the ability of workers to change drone-eggs so they will produce workers. But, Mr. Simmins, if finding drones in worker-cells is proof of the first change, is not finding workers in drone-cells (a thing which sometimes occurs) equally proof of the second change? But as yet we may be excused for being skeptical as to either change.

Introduction of Queens.—Here's the plan practiced by J. A. Holmberg, given in the Canadian Bee Journal:

"The old queen is caged and placed on the top of the frames for two or three hours. Then she is destroyed and the new queen is put in the same cage, which is placed in the same place over the frames. After an hour she is released, when she is accepted readily. The bees think she is their old queen, now having the odor of the old one gathered from the cage and her position over the bees. He says the plan is a good one in his practice."

Control of Queen-Fertilization is claimed to be secured by J. A. Holmberg, as reported in the Canadian Bee Journal:

"He practices Doolittle's plan in rearing queens. His nuclei are supported, not only with nursing-bees but with a good supply of drones. He removes the nucleus to his cellar where he leaves it well supplied with honey for about three days. He then, at 5:30 p.m., after all outside drones have returned to the hives, brings out his nucleus, when the virgin queen and drones will at once rush out for a flight after their long confinement. After their return the queen is examined and if she does not show evidence of having met the drone, the operation is repeated and she is given another chance at the same hour on the following day.

Getting Bees Started in Sections.—Editor Hutchinson says, in the Bee-Keepers' Review, that when the flow of honey starts suddenly with a rush there is no difficulty in getting bees to work in sections with no special inducement, but let the flow be light at first, gradually increasing, and the probability is that some colonies—many, if light Italians—will think of swarming rather than beginning work in sections. In such case, "nothing will so quickly and surely lure the bees into the sections as will nice empty combs." He says two or three sections containing drawn comb are enough to start the bees at work, but as he uses no separators, the bees make better work if the whole of the sections in the super contain combs. Some who use separators succeed nicely with a single bait comb.

Preventing After-Swarms.—G. M. Doolittle gives his two favorite methods in Gleanings. If the swarm is to be left on the old stand, it is hived on combs or on frames filled with foundation in the old hive, the brood-combs all being put in a new hive on a new stand, if necessary some of the bees being brushed off so that barely enough bees are left to take care of the brood, the weather being considered. Next morning one of these central combs is lifted out and a virgin queen allowed to run on it. The bees at once destroy all queen-cells. If the swarm is put on a new stand, he listens for piping the evening of the 8th day, and if none is heard he does not listen again till the evening of the 13th day. If no piping is heard by the evening of the 17th day, no swarm need be expected. Next morning after piping is heard, every queen-cell is cut off, the bees being shaken off each comb so that no cell may be mist.

GEORGE W. YORK, Editor.



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United States Bee-Keepers' Association.

Organized to advance the pursuit of Apiculture; to promote the interests of bee-keepers; to protect its members; to prevent the adulteration of honey; and to prosecute the dishonest honey-commission men.

Membership Fee—\$1.00 per Annum.

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Place and Date of Next Meeting:

IN FRANKLIN INSTITUTE,
15 South 7th Street, between Market and Chestnut Sts., Philadelphia, Pa.,
September 5, 6 and 7, 1899. Every bee-keeper is invited.

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NOTE—The American Bee Journal adopts the Orthography of the following Rule, recommended by the joint action of the American Philological Association and the Philological Society of England:—Change "ed" or "ed" final to "t" when so pronounced, except when the "e" affects a preceding sound.

Growth of the New York Honey Market.—Formerly there was a demand during only part of the year, now it is continuous. There is a growing demand for extracted honey from druggists and confectioners, and for making honey-cakes, of which the Jews consume large quantities, and much extracted buckwheat is exported for making gingerbread. These items are given by J. E. Crane in *Gleanings*, and the editor adds that brewers now use glucose instead of honey, but bakers use large quantities of honey because it is the only sweetener that will allow the baked goods to remain moist without the expensive addition of glycerine.

Spreading Anti-Adulteration Information.—Mr. F. A. Snell, of Carroll Co., Ill., sends us the following which should commend itself to every one of our readers:

EDITOR YORK:—The investigation of foods adulterated, which was made in Chicago and reported on page 313, is an important one. I took that copy of the *Bee Journal* to the editor of our home paper, and called his attention to the article, and it was freely and gladly accepted and published in the June 1st issue, a copy of which I will send you. It is printed in full, and credit duly given.

Now I suggest that you call the attention of your readers to the importance of each one taking a copy of the "Old Reliable" to his editor and secure its insertion. This one thing, so easily done, will be the means of bringing this cursed adulteration business to the greater attention of

the people. By each reader doing as suggested, it will be read, and food adulteration be denounced by tens of thousands of our people who from the very horror of the bad work, will press the importance of legislation, and stringent laws may be secured soon in favor of honest industries, and the punishment of the guilty rascals—the adulterators—who have done so much to undermine the health of our people, and rob the legitimate producer of pure food.

Let every bee-keeper now promptly do good missionary work along this line, and we may as a people reap the benefit in the near future. While conversing with others let us talk this matter up, and present it to our law-makers.

F. A. SNELL.

We think Mr. Snell has done well, not only in getting his home newspaper to reprint the article referred to, but also in making the suggestion that others "go and do likewise." What is needed is more agitation along the line indicated. Only those who are in sympathy with evil of any kind want to keep it hushed up. Let the light be turned on until dark deeds and deeds that seek the darkness are shown up in all their wickedness.

Strong laws are needed against food adulteration of all kinds, and the way to get such laws is for those in favor of them to agitate the subject until victory is won. "Keeping everlastingly at it brings success" is a good maxim. Keeping everlastingly after wrong-doers is bound to lessen the wrong-doing after awhile.

Honey for Fine Cakes, Confectionery, Etc.—It seems that not only is the use of honey for such purposes on the increase, but the quality of the goods has been much improved within the past few years. Editor Root, of *Gleanings in Bee-Culture*, sent to one of the leading establishments of the National Biscuit Co., for samples of goods in which honey takes the place of sugar, and in reply received with the samples a note which said in part:

"We are sending you five varieties of cakes, in the formula for which honey is the principal factor; besides, it gives variety in flavor different from any other sweetenings, and it makes goods much lighter and finer in appearance. The names of the goods are as follows: Honey-jumbles, iced honey-cakes, frosted creams, honey-bars, and honey-cakes plain. We are on the increase every year in the use of honey in the manufacture of cakes."

Perhaps the most valuable feature of cakes made with honey is their keeping quality. As a test, A. I. Root kept some honey-cakes two years, when they were found to be just as good as new. And we had some in our office for two or three years after the World's Fair, in 1893, that had been made several years before that great show, and they were just as good as ever. Age seemed to have no effect on them whatever, unless it was to improve them. Many baking concerns in this country use extracted honey by the carload; and some of them seem to prefer the darker grades of honey, on account of their generally stronger flavor.

Suggestions for the National Association.—So long as advice costs nothing perhaps it will not be objected to. In the following we think Mr. Moore has given some good suggestions or advice, which we would like to see acted upon by the officers of the United States Bee-Keepers' Association:

The United States Bee-Keepers' Association has been doing much good in the past, and will no doubt do much in the future to benefit bee-keepers. But there is one thing that might be changed to the end that the Association shall be better advertised than it has been in the past. Let us have a short report, or article, every month from the general manager or secretary, or both, on the work the Association has done for the preceding month, and the new plans that are being made for future work.

A yearly report may be all right for old members, and those who have put on the harness; but how about the other 300,000 bee-keepers that we are anxious to get into the fold?

The greatest business enterprises have been built up on broadcast advertising, and this is necessary for every business, both small and great.

I take it that all the bee-papers would publish free any remarks Mr. Secor and Dr. Mason chose to make on the progress and aims of the Association. Articles could be sent to one bee-periodical with the request that all the others copy.

If the officers of the Association did not wish to make all the contributions themselves, they could request some bee-keeper to write a paper for publication on some phase of the Association's work. Suppose prominent apiarists look up the number and form of mixtures and adulterations of honey in Indianapolis, New Orleans, San Francisco, New York, Cleveland, and other large cities, and report the same thru the papers for our information and instruction.

The first step toward curing any disorder is a perfect knowledge of the symptoms. This matter of adulteration and prevention of the same is being agitated by the people more than ever before; and we must dig up new ideas and new methods of work, or have the procession pass us.

HERMAN F. MOORE.

We hope that Messrs. Secor and Mason will consider the foregoing suggestions in the same friendly spirit in which we know they are given. People are not tumbling over each other these days to get into an organization that they know but little about. Inform them, and they will be ready to join, provided the information shows it to be worthy of their support. Let us keep the excellent objects and work of the United States Bee-Keepers' Association ever and always before the bee-keeping public.

Apis Dorsata Caught at Last.—Gleanings in Bee-Culture for June 1 contains a letter from Rev. W. E. Rambo, a missionary in India, who has found a colony of *Apis dorsata*. It was on a limb of a tree about 60 feet from the ground, and very difficult of approach. Seen thru a field-glass, Mr. Rambo reports the bees as very beautiful. He spent from 9:30 p.m. till 4:30 a.m. in the tree; smoked the bees, and secured half of them, but does not know whether he got the queen or not. The single comb was 30 inches by about 15 deep. The greater part of the comb dropt to the ground, and was made into jam, but enough was secured to fill nearly three Langstroth frames. Those who are anxious to secure *Apis dorsata* will watch with much interest to see what success Mr. Rambo may have in taming the big bee.



— Mr. O. O. POPPLETON, of Florida, we understand, expects to be at the Philadelphia convention. He's a man worth seeing. There are many others like him in beedom. And some of them also will be in Philadelphia when the bee-keepers "swarm" there in September. Better get ready to go. The convention begins Tuesday evening, Sept. 5.

— Prof. E. A. GASTMAN, of Decatur, Ill., is, I think, the nestor of superintendents of city schools in this country. For 38 consecutive years he has been in the public schools of that city, and its superintendent ever since it had a superintendent. On a delightful visit at his home he told me he had never made much money out of bee-keeping (I think he never reached 100 colonies, and his location is poor), but the delightful out-door work had kept him in condition for going on with his work when others were worn out. I think he's about 65 years young. [The Doctor might have said that, had it not been for the bees, he probably would not have been among us now. Years ago, if I make no mistake, he gave up a lucrative position, having a fat salary attach to it, on account of his health.] He preferred a

smaller salary, God's pure air, and a longer lease of life. And he got them. The bee-keeping fraternity can rejoice that we have so many professional men in our ranks. We have our lawyers, doctors, members of Congress, and our senators, school-teachers, professors in colleges, many of whom have been driven to bee-keeping as a pleasant and profitable pastime. Such men in our ranks have done much to enrich our literature and exalt our calling. Is there any other rural pursuit that can show such an array of talent? —EDITOR.]—From Dr. Miller's "Stray Straws" in Gleanings in Bee-Culture.

HON. J. M. HAMBAUGH, the inspector of apiaries for San Diego Co., Calif., writing us June 1, reported as follows:

"FRIEND YORK:—It has been so miserably cold and disagreeable on the coast that I have not been able to get out inspecting, but am awaiting suitable weather. This I know sounds strange to come from this land of sunshine. Yes, and to cap the climax, last night and to-day we have had in the region of $\frac{1}{2}$ inch of rainfall, which, in consideration of the hay and grain crop being nearly all cut and lying loose upon the ground, is more of a calamity than a benefit. Of course it will help out the bees, and the fruits will be benefited, but it is one of California's 'little jokers.'"

DR. MILLER has told on himself again (and this time also gets somebody else's "fingers in the pi"). Here's one of his "Stray Straws" in June 1st Gleanings in Bee-Culture:

"On my return from Illinois Sunday-school convention I sat with Editor York and his efficient helpers around his festive board, or, rather at one side of the board, for the board was up against the wall in the printing-office, and the noon-day lunch tasted all the better because the fair hands that prepared it had been setting type just before."

It's a wonder the Doctor didn't tell what he had for dinner that day. But it likely was so little that it failed to fill up any, and thus was not noticeable. If those "fair hands" ever get hold of the Doctor again, they'll make a good case of printer's pi out of him. He won't be so "festive" after that.

MR. HERMAN F. MOORE, secretary of the Chicago Bee-Keepers' Association, is rapidly becoming one of the greatest bee-cranks in this part of the country. He talks bees most of the time when awake, and we doubt not his wife could testify to his keeping up an almost constant buzz in his sleep. Mr. Moore was invited to address the students of the academy of Northwestern University, at Evanston, Ill., on the subject of "Bees and Flowers," Friday, May 19. Prof. H. F. Fisk, principal of the academy, in a letter sent to Mr. Moore afterward, had this to say in reference to the apian address:

"MY DEAR MR. MOORE:—I desire to express my hearty appreciation of your interesting address to the school on last Friday. . . . I wish I could give you an honorarium that would suitably recognize the real value of the service rendered to our young people.

"Yours very truly,

H. F. FISK."

Then the Evanston Index for May 20 contained the following notice of Mr. Moore's talk:

"An address on 'Bees and Flowers' was given by Herman F. Moore, secretary of the Chicago Bee-Keepers' Association, at the academy chapel exercises yesterday afternoon.

"For an hour Mr. Moore kept the 'preps' interested by the number of unsuspected phases of apian lore he presented. Queen-bees and their royal vagaries, the best methods of hiving swarms, the races of bees, the hexagonal forms of cells, the differences in flavor produced in honey from different flowers, poisonous honey, wild honey, were all successfully treated. From these subjects the lecturer past to the great establishments owned by some American bee-keepers, and phenomenal yields of honey.

"The address was ingenious, and showed special research."

Mr. Moore is an interesting speaker, and fully informed on his subject. He is a hard worker, and unless we miss our guess he will be heard from in a very effective manner very soon. Keep your ear close to the ground for awhile.

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We desire to inform our friends and patrons that our firm has been re-organized and additional capital added. The business will be conducted under the firm name and style of

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at the old stand, where we have had the pleasure of serving our friends for the past 11 years. Management and supervision will be the same and our business methods—those of square and honest dealings—will be practiced as heretofore.

We believe we have won the esteem and confidence of our shippers thruout the country, and that our dealings, as a rule, have been of the most pleasant nature.

Our additional capital will put us in position to increase our already large business still farther, if possible, and at the same time enable us to treat our shippers even more liberally than heretofore, in making advances, etc.

Records will show that we handle by far the bulk of all the honey sent to our market. We make honey the principal part of our business, are personally acquainted and have trade connections all over the country, which enable us to handle any amount of honey to better advantage than any other house.

Old shippers know us and will bear us out in what we have said. Those bee-keepers who do not know us and have had no dealings with us, we would cordially invite to correspond with us and make our acquaintance. We not only handle on commission but buy largely as well, from small lots to carloads, for spot cash.

We wish to call the attention of the Southern bee-keepers to the fact, that our market never was in better condition than this season. Old stock is disposed of and the market is bare, with a good demand. New crop will find ready sale and at higher prices than have ruled for years past. We would advise them to send their honey, while there is a good demand at good prices, as later on conditions of the market may change.

We also handle **MAPLE SUGAR AND SYRUP** very extensively, and would be pleased to hear from those having any of these goods to offer.

In conclusion, we wish to extend our thanks to all of our shippers for their past favors, and trust to receive their kind consideration in the future.

21A4t Please mention the American Bee Journal.



Queen-Clipping Device Free....

The MONETTE Queen-Clipping Device is a fine thing for use in catching and clipping Queens' wings. We mail it for 25 cents; or will send it FREE as a premium for sending us ONE NEW subscriber to the Bee Journal for a year at \$1.00; or for \$1.10 we will mail the Bee Journal one year

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In the multitude of counsellors there is safety.—Prov. 11-14.

Italians, Blacks, and Black-Italians Swarming Without Capt Queen-Cells.

Query 92.—It is generally admitted, I believe, that Italian bees will sometimes swarm without having capt queen-cells in the hive, and sometimes even without having queen-cells started.

1. In the light of your experience, are you prepared to affirm that black bees can be depended upon not to swarm without capt queen-cells?

2. Same question applied to black-Italian hybrids.—MINNESOTA.

A. F. Brown—1 and 2. No.

Eugene Secor—1 and 2. No.

C. Davenport—1 and 2. No.

Chas. Dadant & Son—1 and 2. No.

J. A. Stone—1 and 2. I am not prepared to say.

Mrs. L. Harrison—1. Yes. 2. I think not.

Dr. J. P. H. Brown—1 and 2. I cannot "affirm."

W. G. Larrabee—1 and 2. I do not think they can.

J. M. Hambaugh—1 and 2. I am not authority on this subject.

E. Whitecomb—1 and 2. I don't know; have had no experience.

E. S. Lovesy—1 and 2. I have had no experience to speak of with any kind of black bees; my bees are mostly the leather-colored hybrids from $\frac{1}{2}$ to $\frac{3}{4}$ Italian, and the

Extracted Honey Wanted

As soon as you have any good, well-ripened Extracted Honey for sale, send us a small sample, stating quantity, price expected delivered in Chicago, and how put up. Prefer it in 60-pound tin cans. Expect to be able to place carload lots as well as smaller shipments of Extracted Honey. But don't ship us any until we order. Address,

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Warranted purely mated; all Queens by return mail; will run 1,200 nuclei; Queens reared by Doolittle's method; safe delivery and satisfaction guaranteed; have 11 years' experience and know what good Queens are.

Prices—75c each; 6 for \$4. Selected, \$1; 6 for \$5. After July 1, 50c each; 6 for \$2.75. Selected, 75c; 6 for \$4.
My Queens are prolific and workers, industrious as well as beautiful to look at; hundreds of testimonials prove this. I just now have a nice lot of Queens which have just started to lay. Order at once and I will send you something fine.

SPECIAL LOW PRICE on Queens in quantities. Address,

H. G. QUIRIN, Parkertown, Erie Co. Ohio.

Money Order Office, BELLEVUE.

22A21t Please mention the Bee Journal.

Root's Column

WE WANT every reader of this paper to send at once for a sample copy of GLEANINGS IN BEE-CULTURE. See some of our offers below.

Please mention this column when writing.

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MICHIGAN FARMER, OHIO FARMER.

For One Dollar and Twenty-Five Cts.—GLEANINGS and RURAL NEW-YORKER one year.

For One Dollar and Thirty Cents—GLEANINGS and NATIONAL STOCKMAN AND FARMER one year.

For One Dollar and Fifty Cents—GLEANINGS and COSMOPOLITAN or McCURE'S MAGAZINE one year.

GLEANINGS ONE YEAR, and one untested Italian Queen, for \$1.00 only. We begin mailing these Queens in June, and orders are filled in rotation, so the sooner your order comes, the earlier you will get the Queen.

GLEANINGS ONE YEAR, and No. 1 Repairing Outfit. Price of this combination only \$1.75. We can ship these outfits from Syracuse, N. Y., Mechanic Falls, Maine, Medina, O., or Des Moines, Iowa, so the freight will be low.

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main incentive to the swarming habit is heat and overcrowding. I remove the cause, and have no trouble in the matter.

E. France—1. No. 2. No; altho all bees will usually have capt queen-cells when they swarm.

O. O. Poppleton—1 and 2. No, to both questions; but I have never known an instance of either doing so.

R. L. Taylor—1. No, but I never knew them to do it. 2. I have had hybrids swarm without capt queen-cells.

R. C. Aikin—1 and 2. I have not had blacks for 20 years or more, and we did not think of that point before that.

Prof. A. J. Cook—1. No, there will be cases. 2. The same as No. 1. All bees may behave so. It is exceptional even with Italians.

Dr. C. C. Miller—1 and 2. I wouldn't like to say so under oath. I think Italians seldom swarm without capt cells when left to themselves.

Mrs. J. M. Null—1. Yes. 2. Yes. But the abnormal swarming with Italians is very rare, and then is often superinduced by lack of ventilation.

G. M. Doolittle—1 and 2. I see little difference in bees regarding the matter. In times of excessive swarming, all varieties of bees fail to observe general rules.

D. W. Heise—1 and 2. I have never known black or black-Italian hybrid colonies in normal condition to do so. I would not affirm, however, that they could be depended upon not to do so.

Mrs. A. J. Barber—1 and 2. I have had but little experience with black bees, so I cannot say. The few I had were so unsatisfactory generally that I destroyed the queens and Italianized them.

J. E. Pond—1 and 2. I am prepared to affirm that both black and "black-Italian hybrids" have swarmed in my apiary, not only without "capt queen-cells," but without a rudiment of a queen-cell at all.

C. H. Dibbern—I have never known Italians or any other bees to swarm without having queen-cells, either capt or uncapt. I am not prepared to say, however, that they will not sometimes do so, but I think rarely.

P. H. Elwood—When any variety of bees swarm without capt cells it is usually because the heat has driven them out. When queen-cells have been broken out of a swarm the bees are liable to swarm without capt cells.

Dr. A. B. Mason—1. No, I never kept black bees. 2. They cannot be depended upon not to swarm without capt queen-cells. They will sometimes swarm without making any preparation in the way of starting queen-cells.

Emerson T. Abbott—1 and 2. I have never known a swarm under normal conditions without queen-cells being started. In the light of my experience there are very few things you can depend upon any kind of bees doing every time.

Adrian Getaz—1 and 2. I find but little difference between the different breeds. Such swarming generally occurs when the colonies are much overcrowded, or lack sufficient ventilation, and are often absconding cases, rather than normal swarming.

S. T. Pettit—1. I have never known any bees to swarm without first preparing queen-cells or cups with the necessary egg in each. I have never known pure black bees to swarm without leaving capt queen-cells. 2. I cannot tell what hybrids may do under severe treatment.

Rev. M. Mabin—1. I have known Italian bees to swarm without having queen-cells even started. I have not had any experience to speak of with black bees. 2. I think that crosses between the Italians and blacks will sometimes swarm without queen-cells. There are no hybrid bees.

G. W. Demaree—From long and careful observation along this line of swarming, I am led to the conclusion that all the varieties of bees with which I have had experi-

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We have made arrangements so that we can furnish Seed of several of the Clovers by freight or express, at the following prices, cash with the order:

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Alfalfa Clover.....	60c	1.20	2.75	5.00
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ADEL BEES Are not Italians; they are GOLDEN CARNIOLANS—and practically a non-swarming, non-stinging strain of bees; great honey-gatherers and sure to winter. Tested Queens, each, \$1.00; 6 Queens, \$5.50; 12 Queens, \$9.00. Everything guaranteed. Book giving 37 years' experience in queen-rearing mailed free.

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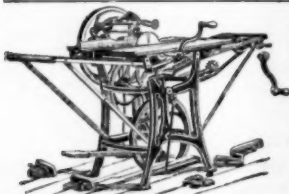
GUS DITTMER, Augusta, Wis.

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We have several 25-pound boxes of VanDeusen Thin Flat-Bottom Comb Foundation for sale at \$12.50 per box. This Foundation is preferred by many. We have only a few boxes of it at our Chicago Branch, so an order for same should be sent promptly. Address,

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Untested Italian, \$1.00 each;
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8Atf Please mention the Bee Journal.

ence are likely to lose their heads under the influence of sudden prosperity, and do eccentric things; among which may be swarming before queen-cells are even started.



Good Honey-Year Expected.

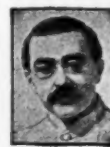
I began the spring of 1898 with 85 colonies in two apiaries, and took off 4,400 pounds of surplus, about $\frac{3}{4}$ being extracted. I packed 100 colonies for winter and lost 20; about half of them became queenless, which I united with others. Some of those I have left are weak, but are now doing well. I had two swarms yesterday. There was considerable loss in this vicinity the past winter and spring. The prospects are good for a honey-year. **B. W. PECK.**
Ashtabula Co., Ohio, May 27.

Small Loss in Wintering.

I wintered my bees outside, and lost three colonies; the others are doing very well; especially the colony of Italians in an observatory hive is doing exceedingly well. I expect a fine swarm from them soon. I have now 30 colonies. **EDW. ROWLAND.**
Hudson Co., N. J., May 25.

Half a Crop Expected.

My 72 colonies of bees came thru the winter with a loss of one. I extracted 224 gallons of honey last week. I don't expect more than half a crop this year. Two-thirds of the bees in this county are dead; cause, starvation. Our people keep their bees mostly in soap-boxes and hollow-logs, and



Mr. Kipling Cured

By the inhalation of Oxygen, the specific cure for all lung troubles. For special information regarding THE OXYGEN TREATMENT, Address, **DR. PEIRO,**
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on the track may not be the "proudest looker." Don't bet until you know the pedigree and record. **Page Fence** has both.

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rob from the top. This time their knives were too long. One man lost 110 colonies out of 125; another, 45 out of 65; still another, 20 out of 21; another, 50 from 90. Some lost all. My son lost 3 out of 50. My daughter lost 4 out of 45. Everything is dried up for want of rain. H. F. BAKER.
Liberty Co., Fla., May 22.

Bees in Good Condition.

Bees are in good condition, and conditions are favorable for a good season. There was considerable loss among old-style beekeepers here the past winter.

S. W. SMILEY.

Lincoln Co., Mo., May 15.

Colonies Built Up Fast.

I lost two colonies out of 18 in winter, and three were queenless. One of the colonies was strong with bees, but was queenless.

Our white clover is nearly all winter-killed. The spring has been so wet and cold that the bees have not been able to do very much on fruit-bloom, but they seem to be building up pretty fast. I see there are some drones flying already. We like the American Bee Journal, and hope that all its readers will be like us—pay two years in advance.

R. CHINN.

Dixon Co., Neb., May 24.

Wintering Bees on Honey-Dew.

Bees in this section of West Virginia wintered only moderately well, and I have come to the conclusion that honey-dew was the cause, for the colonies nearly dwindled down to only a few bees thru the winter, but only three died out of 51, which I consider a light loss for wintering on the summer stands. One of them had 25 pounds of honey in easy reach. Nevertheless, as soon as the warm weather set in they reared brood as fast and lookt as healthy as in any other season. I feed sugar in the spring for a stimulant, and especially watch carefully for intervals when they get no honey, so as to keep brood-rearing going on. I also practice spreading brood, which I now am very successful with, while before, being inexperienced along that line, I lost several colonies for meddling with them.

I think it is a great help to put the colony in condition for honey gathering as early as possible, especially when the queens are not of the very best quality, which need pushing to do their demanded duty.

My bees are in fair condition now, as out of 10 colonies thru which I lookt to-day, 8 had partially completed queen-cells, which means swarms in the first week of June.

Success to the American Bee Journal.
W. C. KAUTZ.

Webster Co., W. Va., May 26.

Beginner's Experience—Coal Smoke

I purchast 4 good, strong colonies of bees from a neighbor bee-keeper last spring, and as I was inexperienced, the man I bought the bees of imparted his bee-knowledge very freely, which favor I certainly appreciated. Before I was thru caring for his bees (for he went away to Kansas, leaving his bees in my care), I had gained considerable knowledge about them. From my 4 colonies one swarm issued about the first of May, unexpectedly to me, which I lost, as they came out while I was away from home. After this I had no more swarms, for I watcht them very closely, and when they showed signs of swarming I would divide them by taking, say two frames of brood with all adhering bees from one hive, say No. 1, and placing in a new colony I aimed to form, then removing No. 1 to a new stand, and putting my new one on No. 1's old stand, to catch the field-bees from No. 1. Then to weaken other strong colonies, and give Mrs. Queen more room to deposit her many eggs, I removed from each strong colony from one to two frames well filled with brood, shaking off all bees, and also placing them in the new colony



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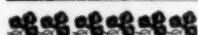
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NEW LONDON, WIS.,

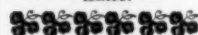
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Conqueror..... 3 in. stove.	DOL. 6.50; " 1.00
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Plain..... 2 in. stove.	DOL. 4.75; " .70
Little Wonder (weight 10 ounces)..... 2 in. stove.	DOL. 4.50; " .60
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Bingham Smokers have all the new improvements. Before buying a Smoker or Knife, look up its record and pedigree.

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Dear Sir:—Have used the Conqueror 15 years. I was always pleased with its workings, but thinking I would need a new one this summer, I write for a circular. I do not think the 4-inch Smoke Engine too large.

January 27, 1897.

Truly, W. H. KAGERTY, Cuba, Kansas.

T. F. BINGHAM, Farwell, Michigan.

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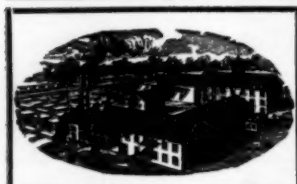
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just formed from No. 1, sometimes making my new colony almost as strong as any of the others, thereby discouraging swarming in many other colonies. I put in empty frames where I take out frames of brood in all the hives.

I increased to 8 last season, and got more honey than I expected, considering the dry weather.

My bees came thru the severe cold last winter better than I expected they would. I did not lose any wintered on the summer stands.

I have increased from 8 to 11 this spring, and have had no swarms so far. Bees are doing fairly well, yes, extra well, considering what they have gone thru in the past 6 or 8 months.

I was manipulating a very strong colony of bees in the bee-yard a few weeks since, and they got pretty badly worked up, so much so that they told me (by their actions) to "git," which I did, for my smoker had failed to smoke when I needed it. So on my way to the "chip-pile" (to recruit my smoke) I past the coal-house, and thought I, "I wonder if coal-smoke would not quiet them?" So I dumpt in a single handful of small lumps, and again made a charge upon them. But, alas! when I marcht forward with a cloud of black smoke rising, they ran like cowards. Is coal smoke injurious to any part of the colony—I mean to the queen, bees, brood or honey? If not, try it once and see the result.

WM. HITCHCOCK.
Lonoke Co., Ark., May 20.

Good Honey from Alabama.

I send a sample of extracted honey, taken May 22 from frames $\frac{3}{4}$ capt. I want to know thru the American Bee Journal how it compares with your best grades in body and color. One of our best honey-plants (ti-ti) failed on account of the freeze in February.

L. W. McRAE.
Washington Co., Ala., May 23.

[The generous sample of honey came all right, and we find it quite equal in body to the best honey we are acquainted with, but think in color it is a shade darker. But it certainly is fine honey, and should suit any body who cares at all for "the real thing." EDITOR.]

Bees in Fine Condition.

I did not lose a single colony the past winter, on the summer stands. I use the Hill's device on top of the frames, and the super is filled with leaves; then I turn a bottomless box over the whole thing, with bee-space in front. I keep the snow from the entrance, and when there comes a warm day after a long cold spell, when some of the bees are flying, I give the hives of those that are not out a few good kicks which makes them all have a good flight; then they are in good condition for another cold spell. If the bees are sick from black honey, I turn the hive down to the sun, take the bottom-board off, and let the sun shine in the hive. This will make them all have a flight. Before night fix them all back in good shape. Several of my neighbors lost half of their bees. Black honey was the trouble. The prospect is fine for a crop of honey. The white clover is looking well, but we are having too much rain.

Sangamon Co., Ill., May 31. C. V. MANS.

P. S.—Hold on a minute. Bees are swarming. I have them in their new house. It was a fine, large swarm. This is my first swarm for the season of 1899. C. V. M.

The Yellow Sweet Clover.

I do not think that the value of yellow sweet clover—*Mellilotus officinalis*—is known or appreciated as it should be. There is very little white clover to be seen in this locality, as it was destroyed by the severe freezing last winter, in the absence of snow, but the yellow sweet clover is in full bloom like a bank of gold.

It blooms fully a month before its rival—

Mellilotus alba—and is a great favorite with the bees; neither does it grow half so tall, nor so rank; the stalks are finer, and the bloom more abundant.

From my experience in saving the seed of these clovers, I think it beats easily. While at a seaside resort I noticed a few plants of this clover growing on the edge of a salt marsh. I made a little cotton sack, and every day I gathered the seed as it ripened. When at my rooms I kept it in a valise; none of the seed grew. If I had dried the seed in the sun it might. I made the same mistake while gathering the seed of the white sweet clover in Iowa, while there on a visit. Any one who fails to grow this clover should transplant a few plants, and if they grow, it will be established for all time. It appears to thrive best when beaten well into the soil, and wagon-wheels during a muddy time plant the seed along highways for miles. Some of the railroads have ascertained the fact that it is a good plant to keep their cuts from washing; and it would be good for the South to plant it on their gullied lands.

MRS. L. HARRISON.

Peoria Co., Ill., May 31.

Rolling in the Honey.

Bees in Tulare County are doing well. I have 48 new swarms so far, making 98 colonies in all. They are rolling in the honey now from alfalfa bloom. I believe this will be a good honey-year in this county.

Tulare Co., Cal., May 19. DAN CLUBB.

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Muth Jars, Muth Honey Extractor—in fact everything used by beekeepers. Send for our Catalog.

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CHAS. F. MUTH & SON.

I wish to announce to my friends and patrons that I have this day sold to C. H. W. WEBER, of Cincinnati, my Honey and Bee-keepers' Supply business, known for the past 38 years as CHAS. F. MUTH & SON. Mr. Weber will continue to push the Langstroth hive and everything pertaining to same; besides, he has secured the agency for Mr. Root's goods, and will sell them at his prices. I beg the customers of the old house, to whom I wish to extend my thanks, to continue their patronage with Mr. Weber, by whom I am sure they will be accorded fair and honest treatment.

MRS. ANNIE MUTH (Widow.)

Cincinnati, Ohio, April 7, 1899. 15Atf

HONEY AND BEESWAX

MARKET QUOTATIONS.

CHICAGO, June 8.—Not any new comb on the market, and some of the amber and dark grades remain unsold. Extracted sells upon arrival—white at 7@8c; ambers, 6@7c, according to quality, flavor and package. Fancy white comb would bring 13c; off grades of white, 11@12c; ambers, 10@11c. Beeswax, 27c.

R. A. BURNETT & Co.

NEW YORK, June 9.—Demand good for extracted honey, all kinds, and some finds ready sale at the following prices: Fancy, 7@7½c; choice, 6@6½c; fair, 5½@6c; common, 5@6c per gallon. Some demand for comb honey at from 11@12c for white, and 9@10c for amber. No more demand for dark. Beeswax dull at from 25@27c per pound, according to quality.

HILDRETH & SEGELKEN.

SAN FRANCISCO, May 31.—White comb, 10@10½c; amber, 7½@9c. Extracted, white, 7½@7¾c; light amber, 6½@7c. Beeswax, 26½@27c. Supplies and demand are both light. Small quantities of new crop extracted, light amber, have been placed to the retail trade at 6½@7c. Old honey is still on market.

CLEVELAND, March 9.—Fancy white, 13@14c; No. 1 white, 12@13c; A No. 1 amber, 10@11c; No. 2 amber, 9@10c; buckwheat, 8c. Extracted, white, 7c; amber, 6c; buckwheat, 5c.

A. B. WILLIAMS & Co.

BOSTON, May 17.—Fancy white, 12½@13c; A No. 1, 11@12c; No. 1, 10c; light amber, 9c; buckwheat, 8c. Extracted Florida, white, 7½@8c; light amber, 6½@7c. Beeswax, 27@28c. The demand for both comb and extracted honey has settled down to the usual small proportions of summer, and prices quoted would be shaded some, too, as stocks are a little heavier than is liked at this season of the year.

BLAKE, SCOTT & LEE.

KANSAS CITY, May 15.—No. 1 white comb, 15c; fancy amber, 14c; No. 1 amber, 13½c; fancy dark, 13c; No. 1 dark, 12c. White extracted, 6c; amber, 5½c; dark, 4@4½c. Beeswax, 25c.

C. C. CLEMONS & Co.

BUFFALO, May 5.—The season for honey is about closed. Some extra fancy white would sell at 11@12c; some very poor selling at 6@7c, and dull. No more business in honey before the opening of the ensuing season.

BATTERSON & Co.

OMAHA, June 2.—A few little lots of new honey from Texas have made their appearance on the market. The stock was put up by inexperienced people and only sold at moderate prices. Extracted of fairly good flavor brought 5½@6c. Comb honey put up in 60-gallon cans and filled with extracted sold at 6½c. This is a most undesirable way of packing comb honey. Trade does not care for it.

PREYCKE BROS.

DETROIT, April 10.—Fancy white, 12c; No. 1, 10@11c; dark and amber, 8@9c. Extracted in fair demand without change in price. Beeswax, 25@26½.

Decreasing demand and the attempt to crowd sales have forced down prices on comb honey.

M. H. HUNT.

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Send us your order. We will fill it by RETURN MAIL, with the best of Italians, large yellow Queens, healthy and prolific, workers gentle and the best of honey-gatherers. Tested Queens, \$1.00 each; Untested, 75c; \$8.00 per dozen. Send for our price-list, and see what others say.

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Your Name on the Knife.—When ordering, be sure to say just what name and address you wish put on the Knife.

The Novelty Knife is indeed a novelty. The novelty lies in the handle. It is made beautifully of indestructible celluloid, which is as transparent as glass. Underneath the celluloid, on one side of the handle is placed the name and residence of the Subscriber.

The Material entering into this celebrated knife is of the very best quality; the blades are hand-forged out of the very finest English razor-steel, and we warrant every blade. The bolsters are made of German silver, and will never rust or corrode. The rivets are hardened German silver wire; the linings are plate brass; the back springs of Sheffield spring-steel, and the finish of the handle as described above. It will last a lifetime, with proper usage.

Why Own the Novelty Knife? In case a good knife is lost, the chances are the owner will never recover it; but if the Novelty is lost, having name and address of owner, the finder will return it; otherwise to try to destroy the name and address, would destroy the knife. If traveling, and you meet with a serious accident, and are so fortunate as to have one of the Novelties, your POCKET-KNIFE will serve as an identifier; and in case of death, your relatives will at once be apprised of the accident.

How appropriate this knife is for a present! What more lasting memento could a mother give to a son, a wife to a husband, a sister to a brother, or a lady to a gentleman, the knife having the name of the recipient on one side?

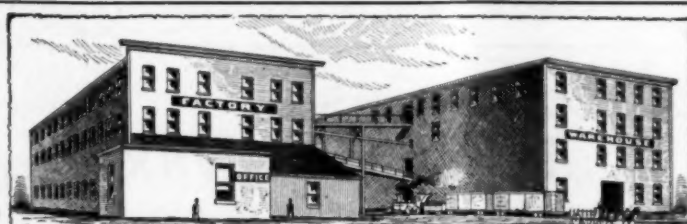
The accompanying cut gives a faint idea, but cannot fully convey an exact representation of this beautiful knife, as the "Novelty" must be seen to be appreciated.

How to Get this Valuable Knife.—We send it postpaid for \$1.25, or give it as a Premium to the one sending us THREE NEW SUBSCRIBERS to the Bee Journal (with \$3.00), and we will also send to each new name a copy of the Premium Edition of the book, BEES AND HONEY. We will club the Novelty Knife and the Bee Journal for one year, both for \$1.90.

GEORGE W. YORK & CO., 118 Michigan St., Chicago, Ill.

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Circular free, giving full particulars regarding each class of Queens. Address,

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Because in 22 years there have not been any complaints, but thousands of compliments.



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